

1 1. An apparatus for placement in a body cavity having an inner surface in a patient,  
2 said apparatus comprising:  
3 an implantable, inflatable balloon for disposition into said body cavity and which  
4 when inflated expands into said body cavity to prevent said inner surface of said body  
5 cavity from folding in on itself and to thus allow substantially all of said inner surface to be  
6 exposed to at least one point within an interior of said balloon;  
7 a subcutaneous, implantable catheter coupled to said inflatable balloon for  
8 percutant disposition into said patient to access said body cavity, said catheter arranged  
9 and configured to provide repetitive access to said body cavity over an extended period of  
10 time, and having an first lumen to allow an optical fiber to be disposed through said first  
11 lumen into said inflatable balloon while being segregated from said interior of said balloon  
12 and to illuminate said inner surface to provide repetitive photodynamic therapy to tissues  
13 adjacent to said inner surface, and having a second lumen for inflation of said balloon;  
14 and  
15 wherein said subcutaneous catheter comprises a proximal end and a self-healing  
16 membrane coupled to and closing said proximal end..

1 A1 6. An apparatus for placement in a body cavity having an inner surface in a patient,  
2 said apparatus comprising:  
3 an implantable, inflatable balloon for disposition into said body cavity and which  
4 when inflated expands into said body cavity to allow substantially all of said inner surface  
5 to be exposed to at least one point within an interior of said balloon;

6           a subcutaneous, implantable catheter coupled to said inflatable balloon for  
7    percutant disposition into said patient to access said body cavity, said catheter arranged  
8    and configured to provide repetitive access to said body cavity over an extended period of  
9    time, and having a first lumen to allow an optical fiber to be disposed through said first  
10   lumen into said inflatable balloon while being segregated from said interior of said balloon  
11   and to illuminate said inner surface to provide repetitive photodynamic therapy to tissues  
12   adjacent to said inner surface, and having a second lumen for inflation of said balloon;  
13   and

14           wherein said subcutaneous catheter comprises a proximal end and comprises an  
15    insert removably coupled to said proximal end, said insert having a distal end removably  
16    coupled to said first lumen in said subcutaneous catheter and a self healing membrane  
17    supported in a proximal end of said insert, said self healing membrane sealingly closing  
18    the proximal insert for placement subcutaneously.

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1    10.   An apparatus for placement in a body cavity having an inner surface in a patient,  
2    said apparatus comprising:

3           an implantable, inflatable balloon for disposition into said body cavity and which  
4    when inflated expands into said body cavity to prevent said inner surface of said body  
5    cavity from folding in on itself and to thus allow substantially all of said inner surface to be  
6    exposed to at least one point within an interior of said balloon; and

7           a subcutaneous, implantable catheter coupled to said inflatable balloon for  
8    percutant disposition into said patient to access said body cavity, said catheter arranged  
9    and configured to provide repetitive access to said body cavity over an extended period of

10 time, and having an first lumen to allow an optical fiber to be disposed through said first  
11 lumen into said inflatable balloon while being segregated from said interior of said balloon  
12 and to illuminate said inner surface to provide repetitive photodynamic therapy to tissues  
13 adjacent to said inner surface, and having a second lumen for inflation of said balloon;  
14 and, wherein:

15           said subcutaneous catheter comprises a proximal end and an insert coupled to  
16           said proximal end,

17           said insert is funnel shaped, said insert has a distal end coupled to said first  
18           lumen in said subcutaneous catheter and said funnel shape of said insert  
19           narrows down to where said insert is coupled to said lumen to ease in  
20           disposition of said insert into said patient and to facilitate introduction of said  
21           optical fiber therethrough without damage to said optical fiber.

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1 19. An apparatus for placement in a body cavity having an inner surface in a patient,  
2 said apparatus comprising:

3           an implantable, inflatable balloon for disposition into said body cavity and which  
4 when inflated expands into said body cavity to prevent said inner surface of said body  
5 cavity from folding in on itself and to thus allow substantially all of said inner surface to be  
6 exposed to at least one point within an interior of said balloon;

7           a subcutaneous, implantable catheter coupled to said inflatable balloon for  
8 percutant disposition into said patient to access said body cavity, said catheter arranged  
9 and configured to provide repetitive access to said body cavity over an extended period of  
10 time, and having a first lumen to allow an optical fiber to be disposed through said first

11 lumen into said inflatable balloon while being segregated from said interior of said balloon  
12 and to illuminate said inner surface to provide repetitive photodynamic therapy to tissues  
13 adjacent to said inner surface, and having a second lumen for inflation of said balloon;  
14 and  
15 a subdermally implanted remote optical coupler and a permanently implanted  
16 optical fiber communicating between said optical coupler and said balloon.

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1 22. A method of photodynamically treating a tumor resection characterized by a body  
2 cavity having an inner surface in a patient comprising:  
3 selectively disposing and retaining a photosensitizing drug in cancerous tissue  
4 within said inner surface of said body cavity and adjacent thereto;  
5 closing off a proximal end of a subcutaneous catheter by a self sealing membrane;  
6 implanting said subcutaneous catheter so that both of a distal end and said  
7 proximal end are under the skin of the patient; wherein said step of implanting  
8 comprises disposing an inflatable balloon coupled to said distal end of said subcutaneous  
9 catheter into said body cavity;  
10 inflating said inflatable balloon in said body cavity by means of a first lumen defined  
11 in said subcutaneous catheter to prevent said inner surface of said body  
12 cavity from folding in on itself and to thus allow substantially all of said inner  
13 surface to be exposed to at least one point within said balloon;  
14 disposing an optical fiber through a second lumen defined in said subcutaneous  
15 catheter to position a distal end of said optical fiber within said inflatable  
16 balloon; and

17           repetitively delivering a fractionated dosage of light through said optical fiber to  
18   effectively photodynamically treat said tumor resection by repetitively piercing the self  
19   sealing membrane in order to pass said distal end of said optical fiber through to said  
20   distal end of the subcutaneous catheter]

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*John P. W.*  
1   33.   The method of claim 22, further comprising providing a remote access port by  
2   implanting said proximal end of the subcutaneous catheter at a position remote from skin  
3   covering said recess, wherein disposing said optical fiber through said subcutaneous  
4   catheter comprises disposing said optical fiber through said implanted remote access port.

*Ale*  
1   34.   A method of photodynamically treating a tumor resection characterized by a body  
2   cavity having an inner surface in a patient comprising:  
3           selectively disposing and retaining a photosensitizing drug in cancerous tissue  
4   within said inner surface of said body cavity and adjacent thereto;  
5           disposing an inflatable balloon into said body cavity coupled to a subcutaneous  
6   catheter;  
7           inflating said inflatable balloon in said body cavity by means of a first lumen defined  
8           in said subcutaneous catheter to prevent said inner surface of said body  
9           cavity from folding in on itself and to thus allow substantially all of said inner  
10          surface to be exposed to at least one point within said balloon;  
11          disposing an optical fiber through a second lumen defined in said subcutaneous  
12          catheter to position a distal end of said optical fiber within said inflatable  
13          balloon; and

14           repetitively delivering a fractionated dosage of light through said optical fiber to  
15 effectively photodynamically treat said tumor resection;  
16           where disposing said optical fiber through said subcutaneous catheter comprises  
17 disposing said optical fiber through an implanted remote access port.  
18           wherein disposing said optical fiber through a remote access port disposes said  
19 optical fiber to an optical coupler serving as said remote access port and having a  
20 permanent implanted optical fiber coupling said optical coupler to a light emission point  
21 positioned in said balloon, and where repetitively delivering a fractionated dosage of light  
22 through said optical fiber comprises coupling an external optical fiber to said optical  
23 coupler and delivering said fractionated dosage of light through said external optical fiber  
24 to said optical coupler.

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Please add new Claims 37-40 as follows:

*Sub B*  
1   37. The method of claim 22, wherein the catheter has a proximal end, and an insert is  
2   coupled to said proximal end; the method further comprising:  
3           disposing said insert into a cranium and supporting said insert only by said  
4           cranium of said patient; and  
5           supporting said insert by said cranium so that forces applied to said insert are  
6           prevented from being transmitted to underlying brain tissue.